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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,355

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Hiroshi Morikawa

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EXAMINER

DICKER, DENNIS T

ART UNIT

PAPER NUMBER

2625

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,355	Applicant(s) MORIKAWA, HIROSHI	
	Examiner DENNIS DICKER	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "said jaggy elimination processing unit" in last two lines of claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "said data transformation unit" and "said jaggy elimination processing unit" in last two lines of claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al (hereinafter "Ishida '978" 6,232,978) and further in view of Karidi et al (hereinafter "Karidi '094" US PUB 2003/00123094).

With respect to **Claim 1**, Ishida '978 teaches a printing apparatus (**i.e., Col. 13 Lines 55-60 and 15 of Fig. 1, Printer**) comprising: a bitmap data storage unit for storing bitmap data **i.e., Col. 3 lines 30-33, bit map data is stored on a disk**);

Ishida '978 does not explicitly teach a bitmap data acquisition unit for acquiring said bitmap data in a matrix of a dot pattern of $n \times m$ from said bitmap data storage unit; a transformation rule retention unit for retaining, data transformation rules for transforming bitmap data and .a data transformation unit for transforming part of said bitmap data according to said transformation rules, wherein said transformation rules include a matrix of a dot pattern of $n \times m$ before transformation and a matrix of a dot pattern of $n \times m$ after transformation each of which corresponds to each of the before transformation $n \times m$ dot patterns, and according to said transformation rules, if the matrix of a dot pattern of $n \times m$ of said bitmap data matches anyone of said $n \times m$ dot patterns before transformation said pattern is transformed into the corresponding one of said dot patterns after transformation.

However, the mentioned claimed limitations are well known in the art as evidenced by Karidi '094, In particular, Karidi '094 teaches the use of a bitmap data acquisition unit (**i.e., Para 0041, means for locating slanted edges**) for acquiring said bitmap data in a matrix of a dot pattern of $n \times m$ from said bitmap data storage unit (**i.e.,**

501 of Fig. 5 and Para 0053, 3 X3 pixel window); a transformation rule retention unit **(i.e., 503 of Fig. 5, jaggy level look-up table)** for retaining, data transformation rules for transforming bitmap data **(i.e., Para 0054, patterns are related to one another)** and .a data transformation unit for transforming part of said bitmap data according to said transformation rules **(i.e., Para 0053-0054)**, wherein said transformation rules include a matrix of a dot pattern of n x m before transformation and a matrix of a dot pattern of n x m after transformation each of which corresponds to each of the before transformation n x m dot patterns **(i.e., 502 of Fig. 5)**, and according to said transformation rules, if the matrix of a dot pattern of n x m of said bitmap data matches anyone of said n x m dot patterns before transformation said pattern is transformed into the corresponding one **(i.e.,504 of Fig. 5)** of said dot patterns after transformation **(i.e., Para 0059).**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the apparatus of Ishida '978 as taught by Karidi '094 since Karidi '094 suggested in Para 0002 that such a modification would provide an efficient apparatus for producing text images with improved smoothness in slanted edges.

With respect to **Claim 2**, Ishida '978 teaches a printing apparatus wherein said jaggy elimination processing unit comprises: a jaggy detection unit **(i.e., Col. 3 Line 49, CPU)** for detecting jaggies appearing on said bitmap data **(i.e., Col. 3 Lines 49-62, CPU unit detects jaggies in bit map data)**; and a vector data production unit for producing vector data **(i.e.,12 of Fig. 1 and Col. 1 Lines 44-47, Outline extraction**

unit produces vector data from image data), based on all stair-like straight lines on jaggies that were detected by said jaggy detection unit (**i.e., Col. 3 Lines 49-52, jaggy detection unit creates vector data based on stair like straight lines**), by drawing a straight line from a midpoint of one straight line to a midpoint of another straight line adjacent thereto (**i.e., Fig. 5 and col. 7 lines 32-40, a straight line from a midpoint of one straight line to an midpoint of another adjacent straight line is drawn**).

With respect to **Claim 3**, Ishida '978 teaches a printing apparatus further comprising: said printing unit for printing data that is produced based on transformation results from said data transformation unit and processing results from said jaggy elimination processing unit (**i.e., Col. 13 Lines 55-60, as shown in Fig. 1 the output unit[15] prints data produced based on the transformation results of the transformation unit [14] and processing results from the jaggy elimination processing unit [13]**).

With regards to the apparatus of **Claim 4**, the limitations of the claim 4 are corrected by limitation of claim 1 above. The steps of claim 4 read into the function step of claim 1.

With regards to the computer program of **Claim 5**, the limitations of the claim 5 are corrected by limitation of claim 1 above. The steps of claim 5 read into the function step of claim 1.

With respect to **Claim 7**, Ishida '978 teaches printing apparatus further comprising a jaggy elimination processing unit (**i.e., 12, 13 and 14 of Fig. 9, outline smoothing unit is used as a jaggy elimination unit**) for executing processing of

eliminating jaggies on said bitmap data (**i.e., Col. 9 Lines 27-29, outline smoothing unit eliminates jaggies on bitmap data also called contour vectors [Col 8 Lines 53-54]**), and a printing unit (**i.e., 15 of Fig. 1, Output printing unit**) for printing data that is produced based on processing results from said jaggy elimination processing unit (**i.e., Col. 13 Lines 55-60, as shown in Fig. 1 the output unit [15] prints data produced based on the processing results of the jaggy elimination processing unit [13]**).

With regards to the computer program of **Claim 8**, the limitations of the claim 8 are corrected by limitation of claim 1 above. The steps of claim 8 read into the function step of claim 1.

With regards to the computer program of **Claim 9**, the limitations of the claim 9 are corrected by limitation of claim 1 above. The steps of claim 9 read into the function step of claim 1.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS DICKER whose telephone number is (571)270-3140. The examiner can normally be reached on Monday -Thursday 7:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Haskins can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/521,355
Art Unit: 2625

Page 8

/D. D./
Examiner, Art Unit 2625
7/26/2008

/Twyler L. Haskins/
Supervisory Patent Examiner, Art Unit 2625